1

SEQUENCE LISTING

<110> Pyle, Ruth A.

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Xu, Jiangchun
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: 4

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    ttccnttnaa gnccttgncn nggggntttt ttccttaacn ttcccgcccc gccgggtttt 1020
    tettttttte eeceaaanaa aaaatttttt nggggeeggg aeeeeneeee eggggggggg 1080
    gggggcaaaa
    <210> 13
    <211> 841
    <212> DNA
    <213> Homo sapiens
    <220>
    <221> misc feature
    <222> 661, 716, 724, 729, 751, 762, 785, 790, 805, 834
    <223> n = A, T, C or G
```

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<400> 13
qqqccqatqc tqcttctaca cqqcqqqqac gttqtccctg ctcctqctgg tgaccagcgt 60
cacqctqctq qtqqcccqqq tcttccagaa ggctgtagac cagagtatcg agaagaaaat 120
tgtgttaagg aatggtactg aggcatttga ctcctgggag aagccccctc tgcctgtgta 180
tactcaqttc tatttcttca atqtcaccaa tccaqaqqaq atcctcaqaq qqqaqacccc 240
tcgggtggaa gaagtggggc catacaccta cagggaactc agaaacaaag caaatattca 300
atttggagat aatggaacaa caatatctgc tgttagcaac aaggcctatg tttttgaacg 360
agaccaatct gttggagacc ctaaaattga cttaattaga acattaaata ttcctgtatt 420
gactgtcata gagtggtccc aggtgcactt cctcagggag atcatcgagg ccatgttgaa 480
agoctatoag cagaagotot ttgtgactoa cacagttgac gaattgotot ggggctacaa 540
agatgaaatc ttgtccctta tccatgtttt caggcccgat atctctccct attttggcct 600
attctatgag aaaaatggga ctaatgatgg agactatgtt tttctaactg gagaagacag 660
ntaccttaac tttacaaaaa ttgtggaatg gaatgggaaa acgtcctttg actggnggat 720
acanacaant gccatatgaa taatggaaca natggggaat tnttttcccc ccttattacc 780
caaanatgan ggcctttatg tcttnccatt tgaattttgc aggggaaggg gtantacttt 840
<210> 14
<211> 870
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
\langle 222 \rangle 56, \overline{5}7, 573, 614, 714, 750, 756, 770, 771, 784, 785, 807,
819, 851, 859
<223> n = A, T, C or G
<400> 14
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ggctcattaa atcagttatg gttcctttgg tcgctcgctc ctctcctact tggataactg 120
tggtaattct agagctaata catgccgacg ggcgctgacc cccttcgcgg gggggatgcg 180
tqcatttatc aqatcaaaac caacccqqtc aqcccctctc cqqccccqqc cqqqqqqcqg 240
gegeeggegg etttggtgae tetagataae etegggeega tegeaegeee eeegtggegg 300
cgacgaccca ttcgaacgtc tgccctatca actttcgatg gtagtcgccg tgcctaccat 360
ggtgaccacg ggtgacgggg aatcagggtt cgattccgga gagggagcct gagaaacggc 420
taccacatcc aaggaaggca gcaggcgcgc aaattaccca ctcccgaccc ggggaggtag 480
tgacgaaaaa taacaataca ggactctttc gaggccctgt aattggaatg aagtccccct 540
ggagaagcaa atatggtatc acggagccat cancagaaga aaacgcccga gaacctgctt 600
gcgacttttg caanggaagt gtaagctacc ttgtcccgga acaagccaga ccaaccaagc 660
atgaactact cccttcttcc ttgaaggagc caaccaaggg gttttattgc ccantgaaaa 720
cttgggccca aaacccaaag aaaaaaaacn tttctngggt caaaaaaaan nccctttcgg 780
tttnnaaaag gggtcccgg gaaggtnatt tcccttant taccccccc ccagaaaagg 840
ctttccccc ntccaaaang gggggtggaa
                                                                   870
<210> 15
<211> 610
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> 57, 340, 345, 351, 354, 356, 372, 375, 380, 382, 387, 392,
395, 406, 416, 418, 422, 426, 431, 465, 467, 471, 490, 499,
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505, 506, 521, 532, 545, 557, 583, 589
\langle 223 \rangle n = A,T,C or G
<400> 15
qqqatattqq cccctcactq caqctqccaq cacttqqtca qtcactctca qcctttncac 60
tttgttcact gtcctgtgtc agagcactga cctccaccct tttctgagag ttattacagc 120
caqaaaqtqt gqqctqaaqa tqqttqqttt catqtttttq tattatqtat ctttttqtat 180
ggtaaagact atattttgta cttaaccaga tatattttta ccccagatgg ggatattctt 240
aagggcccgt tnaancccgn tnatcancct cnacngggcc ttttanttgc caccentntg 420
tngttngccc ntcccccgqq ccttccttga ccctqqaaqq ggccncnccc nctgcctttc 480
ctaaaaaaan gaggaaatng catennattg tetgagtagg ngcattttat tntggggggg 540
ggggnggggc aggacancaa gggggaggat tgggaaacaa tancaggcnt tctggggatg 600
                                                               610
ccggggggct
<210> 16
<211> 762
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 645, 703, 718, 758
<223> n = A, T, C or G
<400> 16
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tctccaggat tttacatttt tgggtaacct cagtgattcc cattggtgta ggaaatgaga 120
ccctctctga agctgaggag agcacgttga tctgaacttt aaatcaatca gtgctgctgg 180
cacaatqaaa qqtqqaactq cacttctqtt qaqctctcaq ttctqcqqaa tttqqtactc 240
attaccgtat tcgccgtact aagttggttt ctgttagtct taacagtctg ttttctttta 300
aaagcatgta gggcttcatt gccatgttct gtgggtgttt ggcaggttac cgatggggaa 360
gattettgte acagaateag caataceata gtttttetae atgtgeteag etgggggtgt 420
ggacaggtag gggtggggaa agaagaggct ctgcgttctg ggggcttttt cttctcctcc 480
ccctaccegg tttccctccc tgttttccta cctctacggc aagcccaaag tgtcttcccg 540
qqaqcccaqc qcaqcccccq qctcttaccc aqqaccccqc cccqtqctqa qccttctqct 600
gaggtccttq cgtqqaqcac actcattcct ccaaccettq cqctnccqtt tctctctttc 660
teegteaegt teeaeegaat caetggetga eegggteeat ggnaagette ceatettnet 720
aaaaggctgc ctgcgcatct tgagcctgcg cttccggntt aa
                                                               762
<210> 17
<211> 1193
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 19, 20, 22, 50, 55, 495, 496, 521, 522, 529, 531, 535, 552,
567, 568, 573, 576, 592, 602, 606, 611, 617, 621, 623, 635,
636, 671, 687, 699, 704, 721, 722, 732, 761, 771, 775, 786,
812, 817, 823, 853, 873, 874, 882, 891, 892, 905, 908
\langle 223 \rangle n = A,T,C or G
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nostonuk nyanat
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<221> misc feature
<222> 912, 913, 914, 930, 933, 940, 944, 956, 962, 975, 978, 992,
993, 997, 1001, 1008, 1019, 1020, 1021, 1029, 1050, 1066,
1068, 1075, 1076, 1077, 1080, 1095, 1104, 1109, 1117, 1118,
1120, 1123, 1134, 1143, 1191, 1192
<223> n = A, T, C or G
<400> 17
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agccgaaaac accctgcaat ctttcagaca ggatgttgac aatgcgtctc tggcacgtct 120
tgaccttgaa cgcaaagtgg aatctttgca agaagagatt gcctttttga agaaactcca 180
cgaagaggaa atccaggagc tgcaggctca gattcaggaa cagcatgtcc aaatcgatgt 240
qqatqtttcc aaqcctqacc tcacqqctqc cctqcqtqac qtacqtcagc aatatgaaag 300
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ctctgaggct gccaaccgga acaatgacgc cctgcgccag gcaaagcagg agtccactga 420
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tnggtnctcc ncctttntgg nanaacccaa aaccnncttc aaattttaaa aaaaggggcc 660
ccttggcctt ntggaaattg gccccntcc ccggaaaanc tttnttttta aagggggcaa 720
nnaaaaacac cnaattttt tttggctttt tttccaaaac ntttttctt ncctngaacc 780
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gggaactttt ttnttaaaac cgggggaact tannaagggg cngggttttt nncaaaaatt 900
ttttnttncc gnnnaccttt taaaaaaatn gcncccccn gggngggttt ttttncccc 960
cnaaaaaaaa aaaanctntt tttttaaaaa anntttnggg nctttttntt ttttggggnn 1020
naaattttnt gaaaaaaat ttttttttn ccccccccc cttttnanaa aaaannnccn 1080
tttttttaaa aaaanggggg gttnttttng ggggggnnan cantttttt tttnccccc 1140
                                                                 1193
<210> 18
<211> 689
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 21, 54, 639, 649, 663
\langle 223 \rangle n = A, T, C or G
<400> 18
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gagagetgea ggaagtgtgg ceagattget aacageggae atgeegtaaa gggteteaca 180
gacattacga ggactttggc tcttacactg tgtgagatgg gaagtgtatt cattttcttg 240
ttgctgctat cataaattac cacaaatttc gtagcttaaa gcaatgtaga tttattctct 300
ttcagttctg gaggtcagaa gtccaaaaac gagtcttcta tggctaaaag caaggtgtct 360
geagggeeag tteeetetgg agaetteagg ggatgateea gteettgeae ttteeagett 420
tgagagecca etggeactee ttggetagta getgeaceae tecaaacteg gettetgata 480
tateteette tetgaettgg acceteetgt etteetgttt taaagacaet catgatgaea 540
ttgggtccac ctggataacc cagaataatc tctccatctc aagatcctta atcacatctg 600
ccatatcttt tttactgggt aaaagggaca tcatcttang gtcttgtgna aataaggatg 660
                                                                 689
tgnaaaatat ttgggggaga gcattttt
```

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<211> 678
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 54, 56, 109, 114, 115, 116, 123, 126, 128, 133, 142, 143,
153, 155, 156, 163, 164, 173, 174, 176, 177, 179, 183, 186,
187, 193, 199, 200, 206, 207, 211, 213, 256, 261, 275, 281,
283, 290, 298, 351, 370, 378, 379, 381, 421, 429, 446
<223> n = A, T, C or G
<221> misc feature
<222> 452, 459, 471, 493, 499, 500, 507, 517, 536, 538, 539, 540,
551, 555, 562, 564, 565, 566, 571, 577, 582, 587, 602, 603,
604, 622, 624, 628, 658, 669
<223> n = A, T, C or G
<400> 19
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ttnttnncgc ctncagggnn ttcccnnggg ntngggggaa aaatccctca ttttgcaaag 240
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caaaatactt tgggccccgt tgggttgatg ccggctaccg ttaagaactt ngggcggcgc 360
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ccaatgggat ngggngggc cntnnnacct ncctttntcc cnggggnaaa aaaggggggg 600
gnnnaatgcc tttctaccaa ananaagngg gggggggga cccaaaaagg ggggggntt 660
tttttttnt ggggggaa
                                                                    678
<210> 20
<211> 695
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
\langle 222 \rangle 20, \overline{2}1, 56, 57, 633, 684, 694
<223> n = A, T, C or G
<400> 20
ggaaagctgg tcagaatctn naagatgggg aaggatctgg aagggctcac gggctnnatg 60
actitttigct ctggtatece tatageettg aggaggeect cagaaceaea ggatggetgg 120
ggtggggctg gagtggcttg ctctccagtg ggagcttctt tggtaggaga acatggcttc 180
agtggateca gagatgeete gtetteeeee tetteetett etteeeette tteeteeaet 240
tetgatttet gettaeaeag gtgateaagg aaggeeaeae ggtgeagaag tggtagttee 300
tgggaagtag ataaagatat totcaggcat gaagcotttt cagatacaca aggtttgcta 360
tgaggcactc agtctgctcc atatccagag tggacagtta ctcacctaat cccacgtgtg 420
tggccagtca cctacacage tecteateta gtgttaatgg teattaceca gteeteattt 480
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ctaatgtcaa gtggttactc acccagcctc acatctaggg cttatagtca ctcacctggg 600
cccacattca taccaatgac ctcacattgt ggngcagcag tcattcatcc agctgtcagt 660
```

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695
     ccaggtcacc caccttggct tgcncctatt ccana
     <210> 21
     <211> 760
     <212> DNA
     <213> Homo sapiens
     <220>
     <221> misc feature
     <222> 75, 601, 606, 627, 653, 701, 739, 741
     <223> n = A, T, C or G
     <400> 21
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     acatatatat aaggnacaca tgagcatttc ttgcatgcat agaatgtgta atggtcaagt 120
     cagcgtattt ggggtatcca tgatcttgag tatttaccac ttctatgtgt tggtaacatt 180
     tcaagtcctc tcttccaact actttgaaat atgcaatata tttttgctaa ctatagttca 240
     ctctagtatg ctttctaaca tcagaactta ttcctttgat ctaaatggaa atttgtacat 300
P. T.
     atteaceaat ttetetteat tteecettet cageecegga taacttatte tatteeetat 360
     ctccatgagg tgaagttttt cacctcccac atataagtga gaacatgtgg tatttgtctt 420
     tctqtqcctq gcttatttca cttaccataa tgacctcaaq ttccatccat gttgttagca 480
     ataacatttt actcttttt atggccaaat agtattccac tgtgtacata aacattttct 540
     ttatccctgt gccactgatg gatgcttagg ttaattccat atctttggta tcatgaatag 600
     ngctgngata aatatgcaag tgcaagnatc tctttgatat actgattctt ttnctggggg 660
     tatacctggg ttgctggaac atgggggggg tctattttta nggttttgga gaaaactaca 720
     tactggtttt ccccaggang ngggtctaaa ttataccttc
                                                                        760
     <210> 22
     <211> 832
     <212> DNA
L. L. 12.
     <213> Homo sapiens
     <220>
     <221> misc feature
     <222> 307, 335, 337, 343, 358, 467, 516, 573, 591, 599, 647, 692,
     723, 741, 749, 751, 757, 761, 771, 800, 818
     <223> n = A, T, C \text{ or } G
     <400> 22
     catgataatg cacactggag atggacctca taaatgtaag atatgtggga aaagctttga 60
     ttctcccagt tcatttcgaa gacatgaaag aattcacact ggggagagac cctataagtg 120
     taaactatgt gggaaagget teaggtette eagttacatt eaactacatg aaaggactea 180
     cactggagag aaaccctatg gttgtcagca atgtgggaaa gcattatctg atctctcaag 240
     ctttcgaaga cacatgataa cacatactgg aaatggacct cataaatgta agatatgtgg 300
     gaaaggnttt gattatccca gttcagcgca aacangngag aantctcact ctggaganac 360
     cctatgaatg caaggaatgt ggtaaagcct tcagtcattc aagttactta cgaatacccc 420
     gaaagagttc atactggaga gaaacccgta taaatgtaaa ggaatgnggg aaaccatttc 480
     attggtcccc ggaggccttt tcataaacct tgaaanggac ccaccagtat tgggagaaaa 540
     cccctattaa gtgtaaaaga aatggggggg ggnaagcaat ttttcatttg naatcaagnt 600
     tcccttttca ttaaaaccat ggaaaatggg accttcacct tagaagnaaa aaaccccctt 660
     attgaagtgg gttggaaacc attggtggaa gnaaaaggcc ctttaaagta ccttttcaa 720
     genttttttt taccaaaatt neeetttang naagaentte neeaeettgg naaaaaaaaa 780
     ggtttggttt ttggaaattn tttaaaaaaa atgggtancc ttaaaaaaaac cc
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<210> 23
     <211> 728
     <212> DNA
     <213> Homo sapiens
     <220>
     <221> misc feature
     \langle 222 \rangle 20, \overline{55}, 559, 598, 651, 670, 707, 722
     <223> n = A, T, C or G
     <400> 23
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     acagatgaag tgcttcattt ttatccctct ggcatccctg ctgcaccata agccctgtag 120
     cacttgataa gatagatggg aatactgagc tcagagagcc cgcagtagca ggagagacag 180
    ggatttgaca aatgagaatg catagaaaaa tgctgggact atgaggagct cgaggtgatg 240
    gtgaggctta tgaaggtctg cagctgacac ctggtgtgga gtggaacttg gccagggtaa 300
     agaaaggggg caggaaagat gtgccatgca gaggggagca ctgcctgtaa gggccaagat 360
     qqaaqqqatc acaqtaaatq caaaactcaq aaaaatcqqt tatqtttqtq atqqaaqqqa 420
gcagaggttg gagctggcac tgccagtggg gactttagtc ctaaagcaaa gcaaaatgtt 480
Ü
    cttctaaaac agtagggctc gatccctgag ttccagaaac tggtggcacc actggatttg 540
Q
    acctttagag atttaccang ctgcatgtgt ggtggatggt ggacagaaga tgggggcnag 600
ab.
    gctggacaca ggctacccca gctattgcca tgccctcttg atgggggtgg ngcttggata 660
ŧŨ
    ggagtgatgn gatgtctgac tggggaaaga ctacccgtgt ggagtgngat ttgggaataa 720
                                                                     728
Į.
    antgcaga
F
     <210> 24
    <211> 203
    <212> DNA
III. H. H.
     <213> Homo sapiens
<220>
<221> misc feature
    \langle 222 \rangle 20, \overline{2}1, 56, 195, 197
    <223> n = A, T, C or G
i eis
    <400> 24
     ggtctacaca gaagtgggcn ntgacatggt tctggtttaa ctaatatttg gctgtntgct 60
    203
    aaaaaaaaa agggnanccc cct
    <210> 25
    <211> 990
    <212> DNA
    <213> Homo sapiens
     <220>
    <221> misc feature
     <222> 55, 531, 541, 585, 609, 625, 637, 652, 653, 691, 703, 727,
    747, 748, 753, 754, 757, 760, 784, 791, 797, 806, 823, 836,
    855, 870, 874, 902, 923, 927, 964, 967
    <223> n = A, T, C or G
    <400> 25
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gacacaatgt tggcactctt ggttctggtg actgtggccc tggcatctgc tcatnatggt 60

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aacataatcc gcgagttggc cagcacgacc cagattgact tctggaagcc agattctgtc 180
acacaaatca aacctcacag tacagttgac ttccgtgtta aagcagaaga tactgtcact 240
gtggagaatg ttctaaagca gaatgaacta caatacaagg tactgataag caacctgaga 300
aatgtggtgg aggeteagtt tgatageegg gttegtgeaa eaggaeacag ttatgagaag 360
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gggttggggg ggggnaaaaa tgggaccctn tttnaaaccc cctggggatg gaaaaattta 900
cntgggggac cttgccccaa aantttngaa aaggggaacc aagggcctgg gttttttttt 960
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<210> 26
<211> 769
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 50, 572, 624, 625, 641, 648, 701, 705, 714, 764, 768
<223> n = A, T, C or G
<400> 26
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ttctaagctt tgccttggcc tgaactggtt ctggggaaaa acaaaaaaac aaaaacaac 120
ttgtggaget gettgttaat gagttteata accaggeage aagageeage tecaageete 180
aagcccactg totactccct gccctgc gg agcctctggc cagtctgctg cctcccaccc 240
tteeteeetg cetetettea ceaeagçijea getgeegtgg aggacagaea atggageage 300
tgtcctgccc tggcaccctg cataccagct gtccactctt atctgcacac acactttctg 360
ggatattaag aggtggagct ttgtgcacag aattgggaag tgggggagga ggagggggaa 420
gacttctgac cctctcttag aagaaaaggg gatagggtgg ggggtggggg cttccgagag 480
cccttttgtc cttgagcccc tgtgttaaga agaatgctca tccccagggc tgagtcaaag 540
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ggattgctga ctgaaqccgg cganntqtqt cctgqcccaa nggqcqqnag cccttgtgqg 660
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                                                                  769
<210> 27
<211> 1182
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482,
483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494,
495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506,
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507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517

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<223> n = A, T, C or G
    <221> misc feature
    <222> 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529,
    530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541,
    542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553,
    554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564
    <223> n = A, T, C or G
    <221> misc feature
    <222> 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576,
    577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588,
    589, 590, 603, 605, 607, 609, 610, 637, 638, 639, 641, 645,
    650, 652, 653, 654, 656, 669, 670, 671, 672, 674, 679
    <223> n = A, T, C or G
    <221> misc feature
    <222> 684, 691, 692, 699, 714, 720, 731, 733, 738, 741, 767, 774,
782, 783, 784, 796, 804, 809, 810, 811, 812, 813, 814, 816,
0
    820, 821, 822, 832, 840, 841, 846, 847, 848, 864, 886, 888,
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    889, 890, 899, 900, 901, 912, 913, 917, 932, 933, 934
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    <223> n = A, T, C or G
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    <221> misc feature
    <222> 935, 936, 937, 939, 941, 942, 946, 948, 950, 956, 967, 984,
F
    999, 1015, 1016, 1022, 1033, 1038, 1039, 1040, 1041, 1042,
    1043, 1044, 1045, 1046, 1047, 1048, 1055, 1056, 1057, 1060,
    1061, 1062, 1063, 1066, 1068, 1088, 1089, 1090, 1091
<223> n = A, T, C or G
٠...
<221> misc feature
<222> 1094, 1096, 1100, 1109, 1110, 1115, 1117, 1121, 1122, 1123,
1125, 1126, 1127, 1128, 1174, 1177
    <223> n = A, T, C \text{ or } G
al-
    <400> 27
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    tgccatggcc ctgtggatgc gcctcctgcc cctgctggcg ctgctggccc tctggggacc 120
    tgacceagec geageetttg tgaaccaaca cetgtgegge teacacetgg tggaagetet 180
    ctacctagtg tgcggggaac gaggcttctt ctacacaccc aagacccgcc gggaggcaga 240
    ggacctgcag gtggggcagg tggagctggg cgggggccct ggtgcaggca gcctgcagcc 300
    cttggccctg gaggggtccc tgcagaagcg tggcattgtg gaacaatgct gtaccagcat 360
    ctgctccctc taccagctgg agaactactg caactagacg cagcccgcag gcagcccccc 420
    accegeeget cetgeacega gagagatgga ataaageeet tgaaceagee nnnnnnnnn 480
    contntnann tttaaaaggg coottttaaa accooonnna naaancooon onnngngggg 660
    geetttttnn nngneecene eeenettttt nngtttttng eeeeeeee eeengggggn 720
    tttttttttt nancecengg naaaaggggg ggeeeeeee eeeeeenggg gggntttttt 780
    tnnnaaaaaa aaaaangggg gggnaaaann nnnncncccn nntttttttt tnaaaaaaaan 840
    ngggggggg anntttngaa aaaaaaaaa annnnnntnt nngggngngn gggggntttt 960
    ttttttnggg gggaaaaaa cccngggggg ttgggggnc cccccttgg ggggnnaaaa 1020
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tttttttnnn nggntncccn aaaaaaann gggtntntgg nnnannnncc ccccccccc 1140
                                                                   1182
caaaaaatgg ggggggggg gggcccccaa aaanttnttt tt
<210> 28
<211> 792
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 605, 638, 640, 706, 713, 724, 753, 759
<223> n = A, T, C or G
<400> 28
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attttaaaag gaatcagagg cagcagggga tcgttcagtg gttgtcaaaa cttgagtgtg 120
ggtcagcatc acctggaggg cttatcagaa tgcagcctgc tgggctcacc cccagagttt 180
tggatttttt ttgtgttaca ggtaagcccg agaatttgca tttctgacaa gatcccaggt 240
gaggeteact egtgetgetg getttgggat caeaettaac taeeggtata gtggggaaag 300
acagggtttq qqqtcacaqa qqqcaqaqct qqaattccaq ctccctccaq ctgtcagact 360
ttgggccagg cacttagttc ctctgagcct catctatgaa acgaaaacat ctgggtattt 420
cccccgcaag gggatgatga ggattgtatg agctcatgtg tgttagaagc tgctcgcagc 480
ctttgagtac acagcaagca ctcagtaagt gttaggaccc tttcttgcca aaaatgaagg 540
caccagaaaa cctggtgtaa aaaaattacc acagataaac ctgcaggaac aaaaatgccg 600
gccangtgcc tgtaatccta qcactttqqq aaqctgangn qqqtqqatca cctgaggcag 660
gagttegaga ceageetgge caegtggtga aaccetgtet etetanagaa taneeaggtg 720
tagngatgcc cctataatcc ggttctagga agntgagcng aaatacttga cctgaggtga 780
                                                                  792
gtgactgatt cc
<210> 29
<211> 693
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> 226, 236, 243, 256, 257, 259, 268, 285, 300, 303, 324, 334,
415, 449, 452, 462, 469, 496, 509, 510, 512, 517, 529, 548,
565, 567, 573, 579, 597, 599, 619, 626, 628, 630, 662, 663
<223> n = A, T, C or G
<400> 29
cgcccttttt ttttttttt ttttttccct taagttacat ttaataacag tgacaatgac 60
caacattgag cagttgcctc gtgctccggt ctcagcactg gcttattaac atactcttac 120
cactcagaga gggacactga ggagaagaga aatggtaaac atcataagaa taaaatgaga 180
ggtaagaata aaatgagagt cagaagcaaa tgggaggaac tctgantcag gaattnggta 240
aanategggg gaaacnnant gacetganat aatggggggt teatntttgg ggaactgtan 300
ganattettg gegeetggag acancaggge aaanaggaag gaagaacetg gatgeeetag 360
cgaaccaagc teeegeatte tateeceaca teeecetgga egtgtttatt agggneeact 420
ggccaaatga caagctccaa agatcacgng angggggggg tnccccggnc ttttggggcg 480
cccaaaacct tttttntgcc cttcttctnn gnaaaanccc ccaggaaant ttgcctttgc 540
tococagnaa aacttgatat gatontntqc ganoottgna aatgggggag totootntnt 600
tgtcttcctg gggcactcna aggagngnan aacgtcaaac cttggggaca tagggtttgc 660
                                                                  693
annaatggtg atgaggggtc atcctgggag ggg
```

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<210> 30
    <211> 1080
    <212> DNA
    <213> Homo sapiens
    <220>
    <221> misc feature
    <222> 20, 55, 240, 248, 345, 366, 442, 447, 449, 484, 508, 514,
    522, 527, 542, 545, 559, 569, 571, 590, 640, 650, 667, 689,
    690, 699, 703, 704, 708, 713, 714, 715, 732, 742, 745, 761,
    791, 792, 793, 802, 809, 820, 831, 840, 841, 861, 872
     \langle 223 \rangle n = A, T, C or G
     <221> misc feature
     <222> 873, 939, 975, 993, 1004, 1005, 1008, 1044, 1066
     <223> n = A, T, C or G
<400> 30
ŧ۵
     gggagaagtt ttggctgtgn gtatcaaaaa gaggagttca taaaggtggt ggtanttaaa 60
     ctaggcattg aatgatgagt agaatgttgg taactatagt caggggaagg gtattccagg 120
Ü
     atgggggcct cttcaacatt acatcgctgt ctccagcccc accaacacca cttatgttgt 180
井
     acagtatgcc ttggcaaatt tgactggcac agtggtcaac ctcacccgaa aacagtgccn 240
Ü
     agaatccnaa gtaaaatccc aagtgaaaac aaagggatct ggtattgaag tacctcatgg 300
ggtcccaggg gccccttttg catttcttaa atgaaaacgg acccngactt cccccgggtg 360
gtggtnccgt ttcttactgg caccgattaa gcccaggggc cctttggtcc ttccctgccc 420
     ttttggaaac ttgaaattca antgggnanc cttcttacct ggaaataact tcttacccat 480
Ę
     gggnacctgg aaaaaacccc cctttggnaa aaanaaaatt tncccgnggc cccccgggga 540
12
     anathttttc tttcaattng gcccccggnc naaaaaaaaa accctttggn aaattttgga 600
O. P. S.
     atccaaccc ccttggaacc cagttggggg gcctttttcn gggcaatttn ccctccaatt 660
     ttttttnttt ccccccttta atttggggnn aaccccttna aanngggnga ttnnnaattg 720
1
     gcccccaaa ancettggaa anggnccccc ttttttcaaa nttggggtcc ccccccggg 780
D
     gaaacccccc nnnaaaccct tnggggcent aacccggggn gggggggga nccccccccn 840
C
     ntttttttt ttttgcccaa nttttaaaaa annttcacct tttcttaaaa aaaaattttt 900
1
     tttccccct gggggcaccc acccccttt ttttttttna ccttgggaaa ccccccctt 960
     ggggccccgt ttttntaaaa aatgggggat ttnccccttt aaannagngg ggggaccttt 1020
     <210> 31
     <211> 1027
     <212> DNA
     <213> Homo sapiens
     <220>
     <221> misc feature
     <222> 21, 53, 54, 88, 91, 94, 369, 467, 539, 579, 582, 598, 606,
     623, 634, 644, 651, 668, 674, 684, 703, 718, 731, 744, 748,
     756, 758, 788, 798, 803, 817, 818, 830, 850, 851, 853, 867,
     883, 888, 889, 894, 903, 905, 906, 907, 909, 919, 922
     <223> n = A, T, C or G
     <221> misc_feature
     <222> 927, 930, 931, 935, 936, 941, 942, 953, 956, 961, 962, 964,
```

ggttgaacca teettgeatt netgggatga atceeatetg atcatggtga aanntttata 60

966, 991, 1007

<400> 31

<223> n = A, T, C or G

```
ctcacaatat tgggggccat caccacancc natntccaaa actttttcat cacaccaaac 120
     agaaactctg tacctaccaa gcaataactc ctcatactcc ctgaccccag ctcctagtat 180
     cctctattct qctttctqtc tccatqaatt tqccttttct aggtatctta cataaataga 240
     atcataaaat atttgtccct ttgtgtctgg tttcttttac ttagaaatgt tttcaggctt 300
     catctatqtt qtcaaatata tcaqaatttc attccttttt aaggctggga taatatccct 360
     aacagtggng tgaggatctc agttctccat ttcctaccaa cagtggtttt tccttttaaa 420
     aaattatcat agccatccta ggatctgtct aatttggcac ataaggngtt actgtggaaa 480
     ggagcacggg actacgcaga agtccaagcc taatcactaa cagactaaca gggggaggng 540
     gacaatccgg gactctaagg gcctcaggtt cttttctcng gnaaaggggg agctaaanaa 600
     tggccngcct ggccaaacct ganataaggg gggnggggaa aaanaaaggg nggccaaata 660
     aaaaaaanct aagnacccag accncctaga aaaggggggg gangcttatt tatttttncc 720
     ccagaaaagg ngaaaacctt aaanggqngg ggcagnanaa ttggggccct ggttaaggca 780
     ccccttnaa tatccccncc ccntgggaac caggggnngg ggccctcaan aggggcctc 840
O
     caaaaacatn ngnggaaaga aaggaangaa cctttaacaa ccngggtnnt gggnaaaggg 900
Ę
     aantnnnang ggaaagggng gnccctntcn ngggnngggt nnaaggggga cenganaaaa 960
ıD
     nngngngggg aaaaatcccg ggccccgggg naaaacaaag gggaacnccc cccccccaa 1020
H
                                                                        1027
     aaaaaaq
ŧŪ
<210> 32
     <211> 1193
     <212> DNA
     <213> Homo sapiens
If the Hand
     <220>
     <221> misc feature
IJ
     <222> 55, 56, 603, 635, 658, 681, 699, 703, 725, 731, 739, 752,
759, 775, 810, 817, 827, 831, 834, 840, 883, 891, 894, 902,
     906, 915, 924, 937, 945, 946, 954, 959, 967, 968, 970, 971,
į,
     974, 975, 976, 977, 985, 986, 987, 989, 997, 1005, 1013
     <223> n = A, T, C or G
     <221> misc feature
     <222> 1014, 1015, 1019, 1050, 1052, 1053, 1054, 1055, 1061, 1062,
     1063, 1072, 1081, 1088, 1089, 1094, 1098, 1099, 1102, 1103,
     1124, 1125, 1139, 1158, 1176
     <223> n = A, T, C or G
     <400> 32
     ggttctttaa aagaggtaag agcaacgtgc tttgggagca gagaagaggg agaanncagc 60
     atcttgcctg gatgagccag gggacacaga agagaagccc actatctcat ttaatcttta 120
     caactetett geaaggttee etggttgtga aaatacatga gataaateat gaaggeeact 180
     atcatectee ttetgettge acaagtttee tgggetggae egttteaaca gagaggetta 240
     tttgacttta tgctagaaga tgaggcttct gggataggcc cagaagttcc tgatgaccgc 300
     gacttegage cetecetagg eccaptgtge ceetteeget gteaatgeea tettegagtg 360
     qtccaqtqtt ctqatttqqq tctqqacaaa qtqccaaaqq atcttccccc tqacacaact 420
     ctgctagacc tgcaaaacaa caaaataacc gaaatcaaag atggagactt taagaacctg 480
```

aagaacette acgeattgat tettgteaac aataaaatta geaaagttag teetggagea 540 tttacacett tggtgaagtt ggaacgaett tatetgteea agaateaget gaaggaattg 600 cengaaaaaa tgeecaaaac tetteaagga getgnggtge eecatgagaa tgagatenee 660

caaagtgccg	aaaaaggtac	ntttcaatgg	gacttgaanc	ccnaagaatt	ggtcattaaa	720
aactnggggc	ncccaattnc	ccctttaaaa	anacttcang	gaaattggaa	aaatnggggg	780
ctttttcccc	gggggaaatg	gaaaaaaaan	ttttttnctt	aaaattnccc	naanttgggn	840
tggatacccc	caatatttcc	cccccgcct	ttttccttcc	aanggggggg	nttnccccc	900
cntttnccct	ttttncgggg	gaanattaac	ccctttnttt	ttggnngggg	gggnccccna	960
aaaattnncn	nccnnnnaaa	atttnnntnt	tgccccncct	ttttnccccc	ccnnnaaang	1020
gggggccggg	ggaaaaaaaa	attttggggn	cnnnnaaaaa	nnnggggggg	antgggggaa	1080
nttttttnna	aaanaaanna	anntttttt	tttttttt	tttnnaaaaa	aaaaaaggnt	1140
tttttttt	ttcccccncc	cccccccc	cccctntttt	ttgggggggg	ggg	1193